

**HELICAL FILTERS AND
METHODS FOR SPECIFYING ASSEMBLY THEREOF**

ABSTRACT OF THE DISCLOSURE

5 A high frequency filter kit in which resonating first and second
electrical circuits are enclosed between proximal and distal ends of a filter
case. Partitioning the inside of the enclosed resonant circuits may be
performed by a user to form at least a first cavity and a second cavity. The
first resonating circuit is then disposed inside the first cavity of the filter case
10 extending from the proximal end towards the distal end, and the second
resonating circuit is disposed inside the second cavity also extending from
the proximal end towards the distal end. Electrical signals are coupled into
the resonating circuits by an encased signal coupler which is removably
mounted by a coupling housing for supporting the signal coupler at the
15 proximal end of the filter case for positioning in the vicinity of the
resonating circuits. The kit thus facilitates enhanced turnout time and
communication of design specifications for manufacture by specifying the
basic components required to build the specific high frequency filter,
allowing the user to build prototype filters that may be used for manu-
20 facturing a RF/microwave system or be provided as a sample to the filter
manufacturers.